



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

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December 18, 1985

CERTIFIED RETURN RECEIPT REQUESTED
(P402 457 281)

Mr. Harvey Cahoon, President
Interstate Brick Company
9780 South 5200 West
West Jordan, Utah 84084

Dear Mr. Cahoon:

RE: Review of Fivemile Mine MR-1, ACT/045/006, Tooele County, Utah

The Division has completed the review of Interstate Brick's MR-1 application for the Fivemile Mine. The enclosed technical concerns must be addressed in order to complete permitting of this operation. If it would be helpful we can arrange a meeting with the technical review staff to answer any questions you may have. Please advise me if this is your desire.

In order to assure a timely permitting of the Fivemile Mine, would you please respond to the deficiencies identified by February 28, 1985.

Thank you for your cooperation in this matter.

Sincerely,

Lowell P. Braxton
Administrator
Mineral Resource Development
and Reclamation Program

JJW/btb
Enclosures
cc: Technical Review Team
9294R-44

TECHNICAL CONCERNS

Interstate Brick Company
Fivemile Mine
ACT/045/006, Tooele County, Utah

December 18, 1985

Rule M-3(1)(b) - JW

The Detail Map depicts waste dump 2f partially outside the permit boundary. Arrangements must be made with the surface owner such that a right of entry is secured and the dump 2f included within the permit boundary. A revised Detail Map will be necessary to reflect this change.

Rule M-3(1)(e) - JRF

The operator must show on a map the disposition of flow from the ephemeral drainage intersected by pit 2e. Also, the measures to keep overland flow, snowmelt and runoff from entering future pits (i.e., berms) must be delineated.

Rule M-3(1)(f) - RVS

The Detail Map indicates boreholes were drilled to delineate the deposit. The applicant must identify the location of boreholes and describe the present status of boreholes (i.e., plugged and abandoned, etc.).

Rule M-3(2)(d) - PGL

Three cross sections of the pit should be submitted to indicate the extent of the highwalls. An extrapolation of the typical cross section indicates that the pit highwall may be 300 feet in height.

Rule M-3(2)(e) Planting Program - KMM

The applicant's revegetation program includes only topsoil replacement, scarification, seeding and fertilization the following spring. The applicant states that "past experience has shown that no problem exists concerning revegetation" (#21D). Is this onsite experience with revegetation or experience on comparable areas? Please clarify.

In order "to stabilize the land as quickly as possible" and provide a "self sustaining vegetative cover" (M-10[12]), the operator should consider drill seeding, and applying two tons per acre native hay mulch. Mulch can be applied before seeding and disced into soil or applied after seeding and crimped.

Broadcast seeding should be used only on slopes too steep for agricultural or rangeland equipment or when small areas are being reclaimed. Broadcast seeding should be followed by hand raking or "tracking" with a cat to provide good contact between seed and soil. Mulch should be applied before "tracking."

Rule M-3(2)(f) - PGL and KMM

The reclamation schedule states that there may be 10-15 years of reclamation concurrent with mining and mining may progress for 60 years. A timetable for the accomplishment of each major step in reclamation should be stated, e.g., reclamation of haul roads, approximate reclamation of highwalls and partial reclamation of the proposed main pit as mining progresses. Contemporaneous reclamation should include revegetation of old pits as they are filled from current mining overburden. The sequence of operation and contemporaneous reclamation should be identified on the detail map.

Rule M-3(5)(c) - RVS

Applicant must commit to plugging exploration boreholes with at least five feet of cement at the surface.

Rule M-5 - PGL

The Division uses the Rental Rate Bluebook and Means Labor Costs and other Means costs for references. The cost from the Rental Rate Bluebook includes the operating cost per hour. A 10 percent contingency is added to the subtotal. These costs should be included in the bond estimate.

Please indicate the type of bonding that will be proposed.

Rule M-10(1) Land Use - KMM

The applicant indicates that the postmining land use will be rangeland which the Division interprets as wildlife and livestock use. Highwalls of unknown height and up to 1:1 slope (#23) without barriers are not desirable for either use. Slopes of 2h:1v would address this concern.

Rule M-10(2)(b) - PGL

Where will the trash, scrap or other refuse be disposed (regularly and upon reclamation)? Will it be hauled offsite to a landfill? How far away is the landfill? Is this cost included in the bond estimate?

Rule M-10(2)(c) - RVS

See comments under Rule M-3(5)(c)

Rule M-10(2)(d) - RVS

Applicant must post warning signs along haul road access routes. Warning sign locations must be identified on a map. Moreover, warning sign maintenance and removal costs must be included in the bond estimate.

Rule M-10(2)(e) - RVS

Applicant must incorporate fencing above highwalls that exceed 50 feet in height until reclamation of the highwall occurs. Final fence removal must be included in the bond estimate.

Rule M-10(3) - JRF

A variance to Rule M-10(3) "Impoundments," may be granted for existing impoundments if the following items are addressed: (1) the operator must backfill as many pits as practicable with overburden from new developments; (2) the slopes of the impoundments must be left at a slope of 2h:1v and revegetated.

Rule M-10(7) - PGL

The haul road as shown on the "Detail Map," exceeds the permit boundary. The roads must be included in the permit boundary and be reclaimed after mining. The exact extent of roads that will be reclaimed after mining should be indicated. Will drainage ditches by the sides of the road be maintained during the bond liability period?

Rule M-10(8) Drainages - JRF

The applicant must submit hydrologic plans for reclaiming and restoring the ephemeral drainage that is currently intersected by pit 2e.

Rule M-10(11) Sediment Control - JRF

The applicant needs to address sediment control off of spoil pads (i.e., berms).

Rule M-10(12)(2)(a) Revegetation - KMM

The applicant should indicate if the permit area consists of more than one vegetation type. A permit area map should include the location of vegetation type(s) and sampling sites.

Rule M-10(14) - EH

It is unclear which areas will have topsoil removed. The plan indicates 25.5 acres, six inches deep. If this is the case, only 20,604 yd³ of soil would be removed. This is less than half the 53,240 yd³ that the applicant has indicated. The applicant must clear up this discrepancy.

The source of the topsoil substitute must be shown on a map, along with the amount available.

Analysis of the topsoil substitute indicates a high SAR value. This may cause problems during reclamation. It is suggested that portion of the storage pile be seeded with the permanent seed mix and studied to determine problems that may arise if this material is used.

A more precise protection plan for the topsoil storage piles must be submitted. How long is an extended period of time?

If a soil survey has been conducted of the area, it must be presented with appropriate maps indicating soil sampling locations.

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